

CLAIMS

What is claimed is:

1. In a process for the production of a hopped malt beverage
5 wherein a process liquid having a high riboflavin content is
hopped to produce the desired beverage, the improvement
comprising treating the process liquid with an effective amount
of actinic radiation from a lamp having a minimum power output
specification as follows:
10 at least about 90 percent between about 300 and less than
about 800 nanometers based on wavelength specific output
power as measured in watts per square meter at a distance
from the light source of three meters,
whereby the riboflavin content is reduced to less than about
15 0.2 ppm and the resulting hopped malt beverage has enhanced
stability to light.
2. The process of claim 1 wherein the hopped malt beverage is
beer.
- 20 3. The process of claim 1, wherein the lamp has a power output
of at least about 90 percent between about 300 and about
700 nanometers.
- 25 4. The process of claim 3, wherein the lamp has a power output
of at least about 60 percent between about 340 and about 550

nanometers.

5. The process of claim 4, wherein the lamp has a power output of at least about 50 percent between about 350 and about 500 nanometers.

6. The process of claim 5, wherein the lamp has a power output of greater than about 20 percent between about 410 and about 450 nanometers.

7. The process according to claim 6, wherein the lamp is an indium-doped arc lamp.

8. The process of claim 2 in which the process liquid is wort.

9. The process of claim 8 wherein the riboflavin content is reduced to less than about 0.1 ppm.

10. The process of claim 9 wherein the riboflavin content is reduced to less than about 0.07 ppm.

11. The process of claim 10 wherein the riboflavin content is reduced to less than about 0.03 ppm.

12. The process of claim 2 wherein the actinic radiation has a wavelength of from 300 to 700 nanometers.

13. The process of claim 12 wherein the actinic radiation has a wavelength of from 340 to 550 nanometers.

14. The process of claim 13 wherein the actinic radiation has a wavelength of from 410 to 450 nanometers.

15. The process of claim 2 wherein the process liquid is maintained at a temperature of from about 25°C to about 90°C during the treatment with actinic radiation.

16. The process of claim 1, wherein the process is a continuous process and the irradiation is carried out in a static mixer.

17. A hopped malt beverage having enhanced light stability prepared by a process comprising treating a process liquid having a high riboflavin content with an effective amount of actinic radiation from a lamp having a minimum power output specification as follows:

at least about 90 percent between about 300 and less than about 800 nanometers based on wavelength specific output power as measured in watts per square meter at a distance from the light source of three meters,

whereby the riboflavin content is reduced to less than about 0.2 ppm and the resulting hopped malt beverage has enhanced stability to light.

18. The hopped malt beverage of claim 17 wherein said beverage is beer.

5 19. The hopped malt beverage of claim 17 wherein the process is a continuous process and the irradiation is carried out in a static mixer.